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An Analysis of the Demand for Postgraduate Educational Science Programs*

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Abstract

This study, aimed to determine the variables that have a role in the emergence of individual demand for postgraduate educational sciences programs, is a descriptive one. The sample of the study consisted of 222 postgraduate students from Ankara University, a developed university, and Gaziosmanpasa University, a developing university. The data was collected through a questionnaire. In the analysis process, nominal data was analyzed by calculating the frequency and percentages, and the data within the preference reasons was analyzed according to the mean and standard deviations. In the analysis of whether preference reasons differentiated according to various variables, independent sample t-tests were used in the comparisons between two variables, and one-way ANOVA testing was used when the variables had more than two categories. Results showed that the variables that have a role in the emergence of individual demand for post graduate educational sciences programs were, in order of their importance, academic/individual, economical/professional, and socio-cultural/familial factors. Institutional factors were different for the AU and GOU. It was found that the demand variables were different for some variables such as marital status, age, educational level of parents, and plans for doctorate.

Keywords

Educational Outcomes, Educational Sciences, Individual Demand, Postgraduate.

Today, demand for education and for higher education in particular has increased significantly (Damme & Karkkainen 2011; OECD, 1978a; Sojkin, Bartkowiak, & Skuza, 2011). While educational systems have been developing rapidly to meet this demand, developing countries have also increased the resources allocated for education in general and higher education in particular after the Second World War (Ansal, 1997). Among the reasons for the increase in the resources allocated for education is the idea that education increases the efficiency of the workforce, and educated manpower is seen as the primary input of the economic system (Woodhall, 1994).

There are two dimensions in the estimation of demand, which could be defined as the wish and the opportunity to be able to attend a specific educational institution. These are social and individual dimensions. Social education demand could be calculated from the stand point of individual education demands (Hesapçıoğlu, 1984, p. 42). Factors affecting the individual education demands have been classified in different ways in the literature on educational economics. Serin (1979, pp. 26-36) classified the individual education demand as macro and micro economic factors whereas Harnqvist (1978 as cited in Tural, 1994) classified it as individual and institutional factors. In

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this study, factors affecting the individual demand were put into four groups of factors: academic/individual, economic/vocational, socio-cultural/familial, and institutional/structural.

Academic/Individual Factors

It is a common view that individual factors affect the individual educational demands in any education type or level (Erkılıc, 2007; Gürler, Turgutlu, Kırcı, & Üçdoğruk, 2007; Haase, 2011; Kurul, 1994; Menon, 1998; Serin, 1979; Ünal, 1996, Yolcu, 2011). Among the individual features are age, gender, race, ethnicity, strengths and weaknesses of the individual, one's interests, cognitive skills, and future expectations. Of those factors, cognitive skills have been the most studied in terms of its effect on individual demand. Attempts to explain the association between cognitive skills and the expectations from the education of an individual were made in a number of studies (Kodde & Ritzen, 1988; Psacharopoulos & Soumelis, 1979). There are also studies examining the effects of motivation (Menon, 1998), preferences (Tamm, 2008), future expectations, perceptions, and attitudes towards employment (Haase, 2011; William & Gordon, 1981) on an individual's educational demands.

Economic/Professional Factors

Economic/professional factors affecting education demands include dimensions such as cost of education, income level of an individual or family, income expectations, choice of profession, information about the market, and the state of the labor market. The fee paid for education service is the defined as the cost of education. The opposite is also true (Serin, 1979, pp. 35-37). As is the case for all other goods, the main determinant of the educational service demand is income level. Dowd (2004) found in his study that family income was a significant determinant for the completion of higher education. Blanden and Gregg (2004 as cited in Bakış, Levent, İnsel, & Polat, 2009, p. 12), in a study conducted in Great Britain, determined that the probability of children completing high school whose families had a 33% decrease in their income, decreased between 3.3 and 6.7%. Likewise, Lankford (1986) found that an increase in the number of individuals in the family affected the education demand negatively because of the increase in educational expense. In the distribution of household consumption expenditures by quintiles ordered by income in Turkey in 2012, with regard

to educational expenditures, the share of the first quintile was 2.3%, while the share of the fifth quintile was 66.8% (Türkiye İstatistik Kurumu, 2013).

Preference of profession is another variable affecting education demand. Variables affecting the preference of profession also affect the educational program demand for a profession. For example, according to the results of a study conducted in 2009, 41.6% of students chose their profession for the positive views of that profession, whereas 34.4% made their choice out of desperation and to avoid joblessness, 39.6% for the advantages of the profession, and 33.5% because of advice (Sarıkaya & Khorshid, 2009).

Socio-Cultural/Familial Factors

The dimension of the demand for higher education related to socio-cultural variables outweighs other education levels. Apart from economic reasons, the desire of an individual to have a prestigious status in society, to build a satisfactory social circle and extend this circle, and the opportunities one believes can be obtained from education are also effective in the individual demand for education. Socio-cultural factors affecting the individual education demand may differentiate from culture to culture as well as from the viewpoint of individuals who grew up in the same cultural surrounding. Among the various socio-cultural factors affecting the individual education demands, family is generally seen as the most important one. There are studies showing that there is a strong relationship between the social status of the families and the rates of participation in education after compulsory education (Hayden & Carpenter 1990; Sander 1992). There are also studies suggesting that the education level and profession of the parents are determining factors in a child's demand for education (Dumas & Lambert, 2005; Haan & Plug, 2006; OECD, 1978b; Tansel, 1997; Ünal et al., 2010, p. 207).

Another variable indicating the relationship between individual demand and culture is gender perception. The roles given to women and men by society may be a determining variable in the education demand particularly for women. The social roles for women and men differ also according to culture. On the other hand, there are common trends regarding the education and employment of women in societies. For example, according to the study conducted in 107 countries worldwide, while the mean education duration of women was 4.3 in 1960, it increased to 6.1 in 2000. The mean education

duration for men in these same years was 4.9 and 7.2 respectively (Barro & Jong, 2001). Operation of the labor market for female employment may also affect women's demand for education. For example, according to the results of a study conducted in 173 countries by the United Nations Development Plan (UNDP) in 2000, there was a significant difference between the mean income of women to men in high, middle and low income countries worldwide, women being at the disadvantage. Per Capita Gross Income (according to the Purchasing Power Parity) in OECD countries was \$14,165 for women and \$26,743 for men. In low income countries, it was \$1,549 for women and \$2,912 for men (UNDP, 2002, p. 152). Studies show that with an increase in education level, the labor force participation rates for women increase (Psacharopoulos & Tzannatos, 1991; Tansel, 1994, 1996, 2002).

Institutional/Structural Factors

Policies regarding the educational system, quotas, and entrance requirements directly affect the individual education demand, and demand can occur within the framework of these policies, regulations, or quotas. Supporting the direct or indirect cost of education for the individual by various educational policies such as bursary, loans, and financial aid to families with children in school may increase the demand for education. Deming and Daynarski (2009), in a study they conducted, found that a student bursary of \$1000 increased the higher education preference and demand of the student by 4 points. Hübner (2012) examined the relationship between the tuition and school enrollment in 7 of the 16 states and found that for every 1000 € of expenditure, 2.7% of the students were discouraged from enrolling in higher education.

While institutional variables may be common in terms of their effect on educational demand, there may also be different institutional arrangements according to each program. Although the development of educational sciences in Turkey shows parallels with its development in the world, it also has sides specific to Turkey. The word "science" has been used together with the word "education" at times and with "pedagogy" at other times such as educational science or pedagogical science since the end of the 19th century (Mialaret, 2010, p. 3). The first educational sciences institute was established in 1912 (Mialaret, 1999). Educational science became one of the most developed disciplines of the human sciences and social sciences in Europe during the 1970-80's (Wulf, 2010, p. 7).

The institutional development of educational sciences in Turkey is similar to that of other countries. As in other countries, educational sciences have been organized under the names "Pedagogy Department," "Educational and Social Sciences Department," "Pedagogy Chair" in various faculties and institutions, as "Pedagogy-Psychology Chair" in the Philosophy Department at Ankara University Languages, History and Geography Faculty, or under the "Education Department" of three-year education institutes (Karakütük, 2006). Institutionalization of the educational sciences in Turkey started in Ankara in 1965 with the Ankara University Education (Sciences) Faculty (Özoğlu, 1997, p. 176), and the Faculty disconnected its entity from other teacher training faculties (Topçuoğlu, 1968). Two turning points may be mentioned in terms of the development of educational sciences in Turkey. First, the number of units consisting of 9 departments and one chair in 1982 decreased to three departments, and the name of the faculty was changed to "Educational Sciences Faculty" under law #2809 in 1983 (Özsoy & Ünal, 2005). The second turning point was realized regarding the "reorganization of the teacher training programs" on November 4th, 1997. With this reorganization, all educational science programs except two departments were closed. The departments of Psychological Services in Education [PSE] and Special Education [SE] continued under different names. From that date, a decision was made that educational sciences were to continue only at the postgraduate level. Interventions in the process of educational sciences in Turkey occurred both to the institutional structures and to the definitions of the fields of study (thus to the curriculum). Student composition was also changed. For example, institutional changes such as closing license programs and establishing a separate institution for running postgraduate programs changed not only the composition of the demand for postgraduate programs but also their numbers.

There is extensive literature related to the individual demand for education as summarized briefly above. Studies on that literature generally focus on post-compulsory education, secondary and higher education (Barutçu, 1995; Canton & Jong; 2005; Duchesne & Nonneman, 1998; Kurnaz, 1996; Mueller & Rockerbie, 2005; Mutaf, 1995; Noorbakhsh & Culp, 2002; Sarpkaya, 2010). In this study, the individual demand for postgraduate education was examined within the framework of educational science programs. The study is a first in Turkey in that it examines the demand for a

"specific" program. Two basic benefits are expected from the study. First, the data collected is expected to be a guide in the planning of postgraduate educational sciences programs. Secondly, it is expected to contribute to the recruitment of the postgraduate educational sciences programs. The secondary aim of this study is to start a discussion about the existence of the educational science discipline, squeezed into the postgraduate programs in Turkey through the institutional variables of demand. Therefore, the benefit expected from the study is of the interest to both the demand group and supply group.

Purpose

The general purpose of this study is to determine the variables affecting the individual demand for postgraduate educational sciences programs (with thesis). Answers to the following questions were sought within the framework of this purpose: (i) What are the socio-demographic features of postgraduate educational sciences students? (ii) What are the university and department preferences of postgraduate educational sciences students? (iii) What are the income source expenditures and income losses of postgraduate educational sciences students? (iv) What variables play a role in the emergence of individual demand for postgraduate educational sciences programs? (v) Do these variables differentiate in terms of other variables (gender, marital status, age, etc.)?

Method

This study is a case study survey, using the research survey model. The research survey model is a research model which "aims to describe a condition of the past or present in its original state" (Karasar, 2011, p. 79). Sample case survey models are the surveys which aim to determine the relationship of the unit with itself and its surroundings in depth and scope (Tütengil, 1975 as cited in Karasar, 2011, p. 86).

Study Group

The study group consisted of students following the postgraduate educational sciences with thesis programs of a "developed" (AU) and a "developing" (GOU) university for the 2011-2012 fall term. The number of students in these programs totaled 535, 403 at AU and 132 at GOU. The study was conducted on the study group population.

Data Collection

A literature review related to the individual demand was made, and a questionnaire was developed to determine the variables determining the student demands. The draft questionnaire, which consisted of forty-four questions, was sent to 14 specialists to determine the content validity. The questionnaire, which was reviewed and reorganized according to the reviews of the 10 experts who responded, consisted of 29 items and three dimensions. Content validity of the research tool was provided by naming the three dimensions in accordance with the expert views and the literature. The Alpha Cronbach method was used in the reliability analysis to test whether the statements of the questionnaire were consistent among themselves. The overall reliability of the research tool was calculated as $\alpha = 0.879$ which was considered as significantly reliable. The rate of return of the questionnaires was 47%.

Data Analysis and Interpretation

Questionnaires collected from the students were coded and transferred to digital medium by the researcher. SPSS was used for data analysis. (i) Data related to student socio-demographic features and department preferences were assessed using frequency and percentage. (ii) As the data related to factors thought to affect individual demand were continuous and in the interval scale, the level of the students' views was determined by calculating the mean and standard deviation scores. (iii) Independent sample t-test and one-way ANOVA testing were used to determine whether the program preferences changed with some individual features of the students. When the F test was significant as a result of the variable analysis, the Scheffe test was used to determine which group caused the difference. The significance level was accepted as .01 in the statistical analyses used in the study.

Results

Results Related to Socio-Demographic Features of the Students

Of the postgraduate students who participated in the study, 121 were women and 101 were men. Of the men, 60.4% were married, and of the women, 37.2%. Of the women, 75.9% were under 30 years old, and of the men, 57.7%. Of the students, 65% had one or two siblings, and only 17.6% were living in a village or town. While 92.3% of the students worked, 85% of them worked as teachers or similar professions. The

monthly income of 67.8% of the students was 2000 TRY or below. It was seen that 8.1% of the mothers and 40.5% of the fathers were working.

Results Related to Income Sources Needed for Postgraduate Education, Expenditures, and Income Losses of the Students

Almost all students (204 students) were earning the money needed for their education. There were only 9 students who received a bursary or student loan. In the fall term of the 2011-2012 academic year, 39.8% of the students spent 251-500 TRY for books and stationery supplies, and 56.7% ventured the income loss of different amounts to be able to continue their education.

Results Related to the Reasons for University Preferences

Postgraduate students were asked about the reasons for their preference of the university where they studied. The students reported the reasons they preferred AU in order of priority: first, the quality of postgraduate education being provided; second, the university being well-known for educational sciences; third, "it is close to where I live/work," fourth "I graduated from this university." The first four reasons of the GOU students in the same order were: It is close to home/work; there was no other choice; it provides quality postgraduate education; and there are friends studying here.

Results Related to Variables Playing a Role in the Emerging Individual Demand for Postgraduate Education

The variables playing a role in the emerging individual demand are given in order of priorities from the mean scores. According to the sorting with reference to the mean scores of the dimensions established based on the expert views, the academic/ individual variable was first ($\overline{X} = 4.31$ /completely agree), the economic/professional variable was second (\overline{X} = 3.02/moderately agree), and the sociocultural/familial variable was third ($\overline{X} = 2.00$ / slightly agree) in the sequence preference. The students reported that 9 of the 29 statements were completely true, 4 quite true, 5 were moderately true, 5 were slightly true, and 6 were not true for their decision to do postgraduate work. Statements the students reported as completely true were "To develop myself" (\overline{X} = 4.62), "To deepen my general knowledge within the frame of the basic theory and applications related to educational sciences" (\overline{X} = 4.50), "To acquire a scientific view" (\overline{X} = 4.39), "To be able to specialize in my field" ($\overline{X} = 4.38$), "To be able to produce solutions to the issues I come across in the field of educational sciences with a scientific perspective" ($\overline{X} = 4.36$), "To acquire information about the developments in the field of educational sciences" ($\overline{X} = 4.28$), and "To acquire information about the scientific research process" $(\overline{X} = 4.20)$. Ten statements were given related to the economic/professional variables; two "completely agreed with," one "quite agreed with," three "moderately agreed with," and four "slightly agreed with." The "completely agree" responses were given to the statements "To increase my professional competencies" ($\overline{X} = 4.62$), and "To do my job better with the knowledge and skills I acquire through the education process" ($\overline{X} = 4.45$). In this study, the statements related to the socio-cultural variables received "slightly agree" responses. Nine statements were given related to this dimension, two of them were found to "moderately agree," one "slightly," and six of them were found to "not agree." The statements "To be able to be in a satisfactory social surrounding during the time I go to the university" $(\overline{X} = 2.85)$, and "To be able to gain a prestigious place in society" ($\overline{X} = 2.61$) were "moderately agree".

Results Related to the Comparison of the Reasons Students Preferred Postgraduate Educational Sciences Programs with Respect to Some Variables

In this subheading, whether the factors playing a role in the emergence of the individual demand for postgraduate educational-sciences education differentiate was examined.

Results Related to the Differentiation of the Variables Playing a Role in the Emerging Individual Demand for Postgraduate Educational Sciences Education in Respect to Marital Status: According to the results of the *t*-test, significant differences were found in these four items: "To be able to meet the demands of my family on this," "To be able to widen my work opportunities," "To be able to find a job with better conditions," and "To be able to increase my life standard." It was seen from the mean scores of the related items that the mean scores of the single students had higher mean scores compared to the married ones.

Results Related to the Variables Playing a Role in the Emerging Individual Demand for Postgraduate Education in Respect to Ages of the Students: The ages of the students who responded to the questionnaire were placed into two age groups 22-28, and above 29. According to the results of the t-test done on the basis of the mean scores of the two groups, significant differences were found in all eight items: "To be able to find a job with a high social status," "To be able to gain a prestigious place in society," "To be able to be in a satisfactory social surrounding during the time I am in the university," "To be able to meet the demands of my family on this," "To be able to widen my work opportunities," "To obtain a promotion at work," "To be able to find a job with better conditions," and "To be able to increase my standard of living." It was seen in all items that the mean scores of the students in the 22-28 age range were higher than the students 29 and older.

ANOVA Results Regarding the Relationship between the Education Levels of the Mothers and the Variables Playing a Role in the Emerging Individual Demand for Postgraduate Educational Sciences Education: According to the results of the analysis, there was a significant difference in three items. These were "To be able to meet the demands of my family on this" (M18) [F(3-213)=6.410, p]< .01], "To be able to widen my opportunities to progress at work" (M21) [F(3-213)=5.580, p < .01],and "To be able to find a job with better conditions" (M25) [F(3-214)=5.680, p < .01]. According to the results of the Scheffe test, there was a significant difference between the students with illiterate mothers ($\overline{X} = 1.25/M18$), ($\overline{X} = 2.95/M21$), ($\overline{X} = 2.95/M21$), 2.18/M25) and students with mothers who were graduates of secondary school ($\overline{X} = 1.97/M18$), ($\overline{X} =$ 4.00/ M21), (\overline{X} = 3.31/ M25) and higher education $(\overline{X} = 2.11/M18), (\overline{X} = 3.96/M21), (\overline{X} = 3.24/M25).$ The mean scores of the students with mothers who were graduates of secondary school or beyond were higher compared to the students with illiterate mothers. According to this result, it was seen that the mothers who were the graduates of secondary school or beyond had higher expectations regarding their children compared to illiterate mothers.

ANOVA Results Regarding the Relationship Between the Education Levels of the Fathers and the Variables Playing Role in the Emerging Individual Demand for Educational Sciences Postgraduate Education: According to the results of the analysis, there was a significant difference in one item: "To be able to meet the demands of my family on this" [F(3-213)=6.158, p<.01]. Regarding this item, there was a significant difference between students with illiterate fathers $(\overline{X}=1.00)$ and students with fathers who were graduates of higher education $(\overline{X}=2.02)$. As with the mothers, fathers who were graduates of higher education also had higher expectations regarding the education of their children compared to the expectations of illiterate fathers.

Results Related to the Differentiation of the Variables Playing a Role in the Emerging Individual Demand for Postgraduate Educational Sciences Education in Respect to Students' Plans for Doctoral Study: According to the results of the *t*-test done on the basis of the mean scores of the two groups, a significant difference was found in all eight items: The students who were planning to do a doctoral study had higher mean scores than the students who were not intending to in the items "To acquire information about the scientific research process," "To acquire a scientific view," "To be able to produce solutions for the issues I come across in the field of educational sciences with a scientific perspective," and "To be able to do doctoral study."

It was concluded that the variables playing a role in the emergence of the individual demands of the students did not differentiate with gender, profession, license programs completed, postgraduate programs being studied, income, expenditures because of education, working conditions and professions of the parents, or the family income of the students.

Discussion

This study examined the variables playing a role in the emergence of the individual education demand for the postgraduate educational sciences programs involving AU and GOU students. With the study, it was also possible to make some determinations on postgraduate educational-sciences student profiles as well as the variables that played a role on the individual demand for postgraduate education. It was possible to say from the analysis of the sociodemographic features of the postgraduate students that their socio-economic levels were average and above average. Two basic results support this result. One is the data regarding the income of the student and the family. About half of the families had incomes between 2001 and 3000 TRY. The other is the educational level of the parents. Results related to both levels were above Turkey's average. This may be regarded as expected because it shows

consistency with both studies about the relationship between access to education and income levels of the families (Bakış et al., 2009; Dowd, 2004; Eğitim Reformu Girişimi [ERG], 2009; Gürler et al., 2007; Halsey, 1993; Lankford, 1986), and studies about the relationship between the education levels of the parents and the education levels of their children (Dumas & Lambert, 2005; Haan & Plug, 2006, Hayden & Carpenter 1990; Sander, 1992; Tansel, 1997). In those studies, it was a common result that there is a positive correlation between educational access and income, and likewise, between the higher education level of the parents and the higher education level of their children. The expectation of the educated family is important in terms of the emergence of the demand for education. Hence, it was seen in the study that the expectation levels of students with parents who had higher education were greater compared to the students with illiterate parents. In the study, fathers had higher education levels than the mothers. This confirms the determination frequently discussed in the literature. Dumas and Lambert (2005) found that a father's education level was more effective on the child's education level than the mother's education level. This result complies with the study results of Gürler et al. (2007). In the present study, the students who could reach the final level of the education process had both parents, in general, and fathers, in particular, with high education levels thus confirming this result. Acemoğlu and Pischke (2001) found in their study conducted in London, that a 10% increase in the family income increased the demand for higher education by 1.4%.

Student profiles also revealed information about the gender perceptions. There were significant differences between women and men in terms of marital status and age of the students. Of the students, 37.2% of women and 60.4% of men were married. In terms of age, 75.9% of women and 57.7% of men were under thirty. It could be seen from these results that women tend to do postgraduate education before marriage and at an earlier age compared to men.

The study showed that the institutional factors of the demand at developing or developed universities may change. The most concrete evidence for this was the reasons they prefer their university for doing their postgraduate work. The students preferred GOU primarily for its being close to where they lived (worked). The effect of the location on the demand was one of the variables emphasized. This result complies with the results of

the studies related to demand at different education levels. For example, in a study conducted by Tansel in 1997 using Ghana and the Ivory Coast data, distance to the school and living in a rural area or in the city were among the variables affecting the demand for the individuals older than 15. In the present study, the distance between the university and the place where students work (live) affected their preferences.

According to the study, the "academic/individual" factors were completely true, the "economic/ professional" factors were moderately true, and the "socio-cultural/familial" factors were slightly true in the emergence of the individual demand for the postgraduate educational sciences programs. These results differ from the results of the studies related to the individual demand for the programs at different levels of the educational system. The study showed that the individual demand may differentiate according to the type and level of education. For example, the study by Kurnaz in 1996 with the title "Factors Affecting the Individual Demand for Open Higher Education" found that students preferred open higher education mostly because it allowed them to continue working while doing their education. It was found that the primary advantage of open education for students was the economic expectation, such as a promotion at work. Mutaf, in his study conducted in 1995 with the title "Factors Affecting the Educational Demand for Industrial, Vocational, Technical, Anatolian Vocational, and Anatolian Technical Lycees," found that the majority of the students preferred these schools for the reasons of "interest in that profession," and the probability of "failing the university entrance examinations." The results of the present study also differ from the results of the study conducted by Barutçu in 1995 which had the title "Factors Affecting the Demand for the Trade and Tourism Vocational Lycees." In that study, almost all students preferred this type of school because of the economic returns, and they had high expectations of a future income. Naturally, the demand for the postgraduate education differs from the demand for the lycee education or demand for the university. In Sarpkaya's study in 2010 titled "Factors Affecting the Individual Education Demand at the University Entrance: Example of Adnan Menderes University," it was seen that the demand for university occurred generally in the form of demand for profession. This result is significant as it shows that there is compliance between the variables of the demand and the aims of the related education level. Thus, in the present study, academic individual variables were seen as important which was consistent with the aims of the postgraduate education. The postgraduate education is a specialized education independent of the field of study. The result of the academic variables as the first reason of preference having a high validity is consistent with this aim. In the discriminate analyses, the agreement level of some items related to academic/individual variables such as "to acquire scientific view," "to acquire information about the scientific research process," and "to be able to do doctoral study" differentiated between the students who planned to do doctoral study and who did not. This result shows parallelism with the results of Erkılıç's (2007) study titled "Factors Affecting the Postgraduate Education Demands of Prospective Teachers," but does not overlap. In that study, it was found that the factors in the "education, instruction," and "socioeconomic" dimensions affected the educational demand of the prospective teachers "extremely" while the factors in "research and development," and "psycho-social" dimensions affected "moderately."

The results of the present study related to the economic/professional variables are inconsistent with the propositions set forth by the Theory of Human Capital because the Theory suggests that individuals invest in education for its future return. However, in the present study, academic/individual factors precluding the economic/professional factors were considered through the contribution of education to the individual development rather than its economic returns. No doubt the responses of "moderately agree" for economic factors do not necessitate ignoring the socio-economic dimension of this education. This data may mean that a program at this level and type does not generally occur as a choice of profession.

The agreement levels of the statements (items) related to socio-cultural/familial variables being considerably low, or some of the items receiving "not agree" responses in the present study are consistent with the results of the other studies on this subject. For example, in the study by Erkılıç (2007) titled "Factors that Affect the Readiness of the Prospective Teachers for Postgraduate Education (Eskişehir Example)," variables in psycho-social dimension were found to be "moderately" effective. In that study, demands of the prospective teachers were affected the least by the psycho-social variables compared to the variables in the other dimensions (education-instruction, research-development, and socio-economic). In the present study, some statements related to the socio-cultural variables received "not agree" responses, the reason for which may be explained by individuals having made many choices, marriage in the first place, because of their age range and social status. The statements related to "socio-cultural/familial" variables differentiated in three items according to age. Younger students (ages 22-28) were found to be more affected by the advantages of education which contributed to socialization compared to middle-aged students (ages 29 and older).

On the other hand, it was found that the variables related to demand were differentiated in terms of neither student nor family income. There may be two reasons for that. First, while the household income is significant in terms of the education of the individual, it may lose its significance after the completion of education with the inclusion of individual income. Second, 85% of the students work in teaching or similar professions, because of this there are not big differences between their incomes, and income distributions are homogeneous. On the other hand, there are studies related to the significance of income in different education levels in terms of their effect on individual education demand. For example, from the Turk Stat 2003 HBS data, the relationship between the distribution of income, in quintiles ordered from the lowest to the highest, and the distribution of the population between ages 7 and 23 according to the education levels continued or graduated was examined. There was a strong dissociation in the education periods of the population according to the quintiles ordered by income. Of the lowest quintiles ordered by income, 87.2% graduated from elementary school or lower, 12.4% from secondary, and 0.4% from higher education. In the highest quintiles ordered by income, 36.3% graduated from elementary school or lower, 35.7% from secondary, and 28.0% from higher education (ERG, 2009, p. 6-7). Data shows that there is a direct correlation between the socio-economic levels of the families and the education they demand/could access. According to this data, it could be said that the low income owners demand/receive education at low levels, and high income owners demand/receive education at high levels.

In the present study, the "economic/individual" factors affecting the individual demand for postgraduate educational sciences programs stood out, which brought up the question of to what extent do those programs meet the needs of the students. Therefore, a common effort and unity of action between the universities and the Inter-

university Council about increasing the quality of already existing postgraduate educational sciences programs, and keeping the quality of the new programs is needed. Measures should be taken related to the criteria according to which the postgraduate educational sciences programs would be opened, and increasing the quality of already existing programs. On the other hand, running the postgraduate educational sciences programs with higher quality is closely related to the readiness levels of the students. It would be difficult for a student who did not receive sufficient education in the educational sciences license programs to specialize in the postgraduate program and fully meet the academic needs. Because of this, reopening of the postgraduate educational sciences programs which were closed by the YOK in 1997 should come under review again.

The study has implications related to practice as well. Of the postgraduate educational sciences students, 56.7% take the risk of income loss to be able to continue their education. Of the students taking the courses, 85% have teaching or similar professions, thus the income loss occurs through the additional course fees. Therefore, if the Ministry of National Education (MONE) is willing to employ teachers with higher education levels, then it needs to consider providing additional payment offers through the course hours during the postgraduate education, in addition to cutting the additional course fees of those teachers. Also, it should increase the salaries of teachers who have completed their postgraduate programs

in educational sciences. It is expected that the majority of working teachers having gone through postgraduate education would increase the quality of education in Turkey. The pioneering point of the educational sciences discipline in the production of the scientific knowledge and in the development of education in Turkey would carry out the mentioned mission as necessary.

In the evaluation of gender, marital status, and age data of the students doing postgraduate work in educational sciences, it was seen that the percentage of married women of ages 30 and above was low. On the other hand, more than fifty percent of the teachers working in the educational system are women. This percentage is even higher in some levels such as pre-school and primary school. Data shows us that some special measurements should be taken in order to increase the demand for postgraduate educational sciences programs for women in this group. For example, making different adjustments in the entrance requirements for postgraduate programs for this group of women, or providing a certain quota should be discussed by the universities.

With this study, the individual demand variables for postgraduate educational sciences programs were analyzed. The study is a first in terms of its attempt to present the variables of a demand for a "specific" postgraduate program in Turkey. Thus, individual demand variables for programs in other disciplines need to be studied at both the postgraduate and doctoral level and by different universities.

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(Footnotes)

- 1 Öğrenciler birden fazla seçeneği seçebilirler.
- 2 Öğrenciler birden fazla seçeneği seçebilirler.